Abstract

Title: The influence of different kinds of warm-up on the speed skills of football players from the ontogenetic point of view.

Aims: The main objective of this diploma thesis is to compare the results of the times achieved by football players in the U18 youth team with their previous times measured two years ago, and in this way to evaluate their development of speed capabilities. Another aim of the research is to evaluate the progress of these players' flexibility at a chosen time interval (two years) and to inquire into other possible connections of these outcomes.

Methods: For the assessment of speed power performance, each player goes through two runs at a distance of 30 meters, with measurements in this section also at distances of 5, 10 and 15 meters. Before the measurement itself, all participants are being prepared by a selected type of stretching. Two standardized tests are used for secondary research dealing with potential connection between the attained speed and the degree of flexibility of lower limbs.

Outcomes: Testing revealed that subjects had a deterioration in the average running time with a two-year interval at distances of up to 15 meters (5,10,15 meters). On the contrary, when analyzing the results of measuring the distance of 30 meters, a significant improvement in average times was found.

Secondary research revealed a significant link between the flexibility of the hamstrings and the achieved running speed. More specifically, the Thomayer test did not find a significant correlation with running speed (statistical significance = 0,0003, material significant: Cohen d = 2,42). In contrast, the Lasegue test showed a significant relationship with running speed (statistical significance = 1.35, material significant: Cohen d = 6.96).

Key words: muscle tissue, adolescence, ontogenesis, stretching, static stretching, dynamic stretching, flexibility, speed abilities.